June 29, 1966

Professor Colin S. Pittendrigh Department of Biology Princeton University Princeton, New Jersey

Dear Professor Pittendrigh:

I have just received a copy of "Extraterrestrial Life" consisting of reprints of many articles on this subject. Many of these articles are very good and are well worthwhile, but I wish to criticize the choice of certain ones. May I say that Sidney Fox's discussion of the origin of proteins has no sense whatever. I believe that his work is a public fraud and that biochemists and biologists should say so. In Argentina last year I heard him give a speech in which he showed a moving picture. A dipper full of an admixture of anhydrous amino acids was poured on a hollow spot in basalt, this was then shoved into an oven and heated to 180° for three hours, removed, and water was poured on it. The small artifacts were then showed under a microscope. All of this could have been said in a few sentences. It was a waste of time to make the picture and it was a waste of the audience's time to watch it. Nowhere did he attempt to explain how he got the mixture of anhydrous amino acids free of other chemical substances, free of sand, clay, sodium chloride, etc., etc.

Fox has consistently maintained that this is part of the origin of life and I wish to maintain that it is nothing but nonsense. Living things live in water at moderate temperatures and the synthesis of protein did not occur through high temperatures surely. Moreover, Fox has shown pictures of his artifacts dividing. Has he never seen a mitotic figure? Why do you include such stuff in a book like this?

May I also say that I am not sure that there is not too much publication of books on this subject. In fact, I have more paper coming to my desk than I could read if I did nothing else. I sometimes think it would be an excellent idea if we all sat back and thought a bit once in a while.

With best regards.

Sincerely yours.

Harold C. Urey

cc: Dr. H. H. Hess Dr. J. Lederberg

P.S. Also, why the Fitch & Anders paper? Do we need to lambaste people over the head for years or can't we let it drop?